

A Note on Malaysian Gunomys

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Until Mr. M. W. F. Tweedie obtained a series of *Gunomys* in Georgetown, Penang, in April 1935, the only bandicoot-rats of any genus I had seen from the Malay Peninsula were the old skins from Penang in the British Museum, collected by Cantor and Flower, on which the original descriptions of *Gunomys varius* and *G. varillus* were based.

Although they have been reported from Singapore we have never seen a specimen among the many hundreds of *Rattus norvegicus* and *R. rattus* examined in the flesh and Penang remains the only authenticated locality for bandicoot-rats in the Malay Peninsula and it therefore seems reasonable to suppose that the colony in this place owes its origin to animals brought by shipping from more northern ports.

The series obtained by Mr. Tweedie contains specimens answering to both *Gunomys varius* and *G. varillus*, individual skulls showing measurements agreeing closely with the type of each form, but the skulls can be arranged in a series, evenly graded according to size and all must therefore be referred to one form for which the prior name is *varius*.

I have examined the type of *varillus* in the British Museum and it strikes me as being a youngish animal. The teeth are not very worn and the zygomatic arches are weak. The top of the cranium is not flattened, the frontal ridges are not strong and the parietal ridges are barely in evidence. A second specimen referred to *varillus* by Thomas, collected by Cantor, is certainly young: the cranium is more globose than in the type. The type of *varius* is much older. The parietal and frontal ridges are well-marked, the brain case flattened, the zygomatic arches strong and the teeth fairly well worn.

Furthermore, *varius* is so near to *bengalensis* that it seems possible to maintain it only as a thin subspecies.

Old skins of *Gunomys* are browner and paler than newer material and when twenty skins of *varius* from Penang and Rangoon are compared with a fresh series of *bengalensis* from Calcutta the differences in colour are by no means striking and only of an average character. The skins of *varius* are usually, but not always, rather darker and less brown above with more of the long black piles in the pelage. Unfortunately, there are few really adult animals in either series and a direct comparison of the size of the two forms is not possible.

The following table gives the measurements of a large male from Rangoon and then those of the five largest specimens from Penang.

Sex	Head and body	Tail	Percentage of tail to H. B.	Hind-foot, S. U.	Ear	SKULL					
						Greatest length	Basal length	Zygomatic breadth	Diastruma	Palatal foramina	Upper molar row, alveoli
♂	265	208	78	39	25	50.6	46.2	28.1	16.4	10.8	8.4
♂	210	170	81	35	25	48.5	45.9	27	15.3	9	7.9
♂	222	178	80	37	21	47.7	45	26.6	14.5	9.1	8.5
♂	215	170	79	35	25	46	43.1	25.6	14.9	8.1	8
♂	220	160	73	34	22	46.1	43.2	25.2	14.6	8.7	8
♀	243	188	77	37	25	47.7	45	27.2	15.1	8.7	8.2

In all cases the maxima of the above ranges slightly exceed those given by Hossack (pp. 68-72) for *bengalensis* in Calcutta but this comparison excludes a Calcutta male in which the skull is 50 mm. in its greatest length because this animal was regarded by Hossack as possibly a hybrid with *R. norvegicus* although it seems doubtful if it is anything more than a very large *G. bengalensis*.

The mammae in the Penang series are usually seven on each side but in one female there are eight.

An outlying form of this species is *Gunomys bengalensis sundavensis* Kloss (1921): judging from the material in front of me it seems a recognisable race on the characters ascribed to it in the original description.

LITERATURE

- Thomas, O. 1907. A subdivision of the old genus *Nesokia*, with descriptions of three new members of the group. Ann. Mag. Nat. Hist. (7), XX, pp. 202-206.
- Hossack, W. C. 1907. An account of the rats of Calcutta, with some remarks on the existing classification of the genera *Mus* and *Nesokia*. Memoirs Ind. Mus., i, pp. 1-80, pls. I-VIII.
- Kloss, C. Boden. 1921. Some rats and mice of the Malay Archipelago, Treubia, ii, pp. 115-124, pls. II-III.